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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,767

03/29/2006

Martin Hagg

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EXAMINER

HAMO, PATRICK

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

04/14/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,767	<b>Applicant(s)</b> HAGG ET AL.	
	<b>Examiner</b> PATRICK HAMO	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>29.3.06, 12.01.07, 23.01.08</u>                               | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “gear mechanisms” and “gear-train outputs” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Rene, FR 2,722,840.

In regard to claim 1, Rene discloses a transport device for pumping from a source 21 to a consumer 29, comprising a pump 1a with conduits 19a and valves 25a, 27a for connecting the pump to the source and to the consumer, and drive means 3a driving the pump such that the suction cycle is shorter than the output cycle (see fig. 2).

In regard to claim 3, Rene discloses two sets of piston/cylinder units 1a, b, defining first and second pump chambers 17a, b, such that both pump chambers have a short suction cycle than output cycle (see fig. 2).

In regard to claim 4, there is at least a brief overlap of output cycles (see fig. 2).

In regard to claim 5, the output pressure is substantially constant (see Abstract).

Claims 2, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Murali et al., US 4,527,954.

In regard to claim 2, Murali discloses a transport device for pumping from a source to a consumer, comprising a pump that defines four sets of pump chambers

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16a-d, with suction cycles for drawing in fluid and output cycles for discharging fluid (see Abstract), conduit means communicating to valves 48a-d, 50a-d, for connecting to source 6 and consumer, and drive means 18a-d connected such that suction and output cycles overlap (see Abstract).

In regard to claim 8, each drive means 18a-d is a separate, controllable hydraulic drive motor.

In regard to claim 10, the output cycles of pumps connected to drives 18b and 18c overlap.

In regard to claim 11, fluid is supplied at a substantially constant pressure (see Abstract).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rene in view of Moutafis et al., US 6,216,573.

Rene discloses all of the limitations substantially as claimed except for a pump releasably connected to a drive means and a portion of the pump system being disposable. However, Moutafis teaches a pump system wherein the pump is easily

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disengaged from the drive means and that pump itself is a disposable unit (see Abstract). It would have been obvious to one of ordinary skill in the art to have modified the drive system of Rene with that of Moutafis to ensure that the system was free from contamination.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rene in view of Ishimoto, US 2003/0012660.

Rene discloses all of the limitations substantially as claimed except for the drive means comprising a single controllable drive motor with gear mechanisms connected to the drive motor and a gear-train output for each pump. However, Ishimoto teaches a single drive motor 3 attached to gear mechanism 41 that controls plural pump systems by way of cams 13, 14. It would have been obvious to one of ordinary skill in the art to modify the control system of Rene with the cam system of Ishimoto to simplify the phase control of the pump displacement.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murali.

In Murali, the drive means and pump means are not disclosed as being integral. Even if they were, it would be obvious to one of ordinary skill in the art to make the integral drive means separable. See MPEP 2144.04(5)(c).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murali in view of Ishimoto, US 2003/0012660.

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Murali discloses all of the limitations substantially as claimed except for the drive means comprising a single controllable drive motor with gear mechanisms connected to the drive motor and a gear-train output for each pump. However, Ishimoto teaches a single drive motor 3 attached to gear mechanism 41 that controls plural pump systems by way of cams 13, 14. It would have been obvious to one of ordinary skill in the art to modify the control system of Rene with the cam system of Ishimoto to simplify the phase control of the pump displacement.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK HAMO whose telephone number is (571)272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/  
Primary Examiner, Art Unit 3746

/Patrick Hamo/  
Patent Examiner, AU3746